



# UNITED STATES PATENT AND TRADEMARK OFFICE

HJB

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,387	08/23/2001	Charles P. Norman	ST00015US2	2456
34408	7590	03/14/2007	EXAMINER	
THE ECLIPSE GROUP 10605 BALBOA BLVD., SUITE 300 GRANADA HILLS, CA 91344			PHU, PHUONG M	
		ART UNIT	PAPER NUMBER	
		2611		
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	03/14/2007	PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/938,387	NORMAN, CHARLES P.
	Examiner Phuong Phu	Art Unit 2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 January 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-10 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 5-7 is/are allowed.  
 6) Claim(s) 1 is/are rejected.  
 7) Claim(s) 2-4 and 8-10 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

1. This Office Action is responsive to the RCE and Amendment filed on 1/19/07.

Accordingly, claims 1-10 are currently pending.

### ***Double Patenting***

2. Applicant is advised that should claims 2-4 be found allowable, claims 8-10, respectively, will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). It appears that in claim 8, the limitation “The receiver of claim 1” should be “the receiver of claim 5--.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Barnard (5,241,561), previously cited.

-Regarding to claim 1, see figure 3, and col. 5, line 47 to col. 6, line 61, Barnard disclose a system comprising:

a first mixer (24, 26) for removing a carrier component of an input signal (outputted from element (21)) (referred to the limitation “the GPS signal”) to form a carrier removed signal in such a way that the first mixer comprises device (26) as a low pass filter for passing only the

lowest, difference frequency component of products of mixing (via device (24)) the input signal with a local oscillator signal (22), and suppressing or removing others of higher frequency (inherently including the carrier component of the input signal) (see col. 6, line 67 to col. 6, line 2), (and it is explained as follows. In Barnard, the input signal is data with bandwidth of 2 MHz and transmitted on carrier frequency 1575.42 MHz (see col. 1, line 34 to col. 2, line 3), (in another word, it can be said that the input signal is within  $1575.42 \text{ MHz} \pm 2 \text{ MHz}$ ), and further, the local oscillator signal can be the same or close to that of the input signal (see col. 5, lines 62-64); therefore for the case that the local oscillator signal is equal the carrier frequency of 1575.42 MHz, since a difference frequency component (( $1575.42 \text{ MHz} \pm 2 \text{ MHz}$ ) - 1575.42 MHz) of the products of mixing is less than 2 MHz, namely, much less than the carrier frequency of 1575.42 MHz, and the low pass filter (26) for passing only the lowest, difference frequency component of the products of mixing, the carrier component 1575.42 MHz of the input signal is, therefore, inherently suppressed or removed by the low pass filter (26));

a second mixer (34) for receiving the carrier-removed signal at a first input port of the second mixer and separately receiving a frequency reference signal outputted from (32) at a second input port of the second mixer and outputting a resultant signal while further suppressing any remained leakage of the carrier frequency component (see col. 6, lines 14-18), (the received frequency reference signal outputted from (32) considered here equivalent with the limitation “a separately received frequency reference signal”);

a comb filter (36), coupled to the second mixer, for filtering the resultant signal and obtaining a first output comprising filter lines; and (see col. 6, lines 18-24); and

a frequency shifter (40, 42, 44) for shifting the filter lines in the first output to produce an output signal outputted from element (44) (referred to the limitation “a compressed GPS signal”) (see col. 6, lines 24-44).

***Allowable Subject Matter***

5. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 8-10 would be allowable if rewritten to overcome the objections, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
7. Claims 5-7 are allowed.

***Response to Arguments***

8. Applicant's arguments filed on 1/19/07 have been fully considered but they are not persuasive.

The applicant mainly argues that Barnard does not teach “a separated received frequency reference signal”, as claimed in claim 1.

The examiner respectfully disagrees. Note that the rejection is based on the limitations recited in the claim. As explained above in this Office Action, Barnard discloses a second mixer (34) for receiving the carrier-removed signal at a first input port of the second mixer and separately receiving a frequency reference signal outputted from (32) at a second input port of the second mixer and outputting a resultant signal while further suppressing any remained leakage of the carrier frequency component (see col. 6, lines 14-18). The received frequency reference signal outputted from (32), being received at the second input port separately from the

first input port, is therefore considered here equivalent with the limitation “a separately received frequency reference signal”). Furthermore, claim 1 does not recite any other limitations for further describing the “separately received frequency reference signal” in order to make it distinguishable from Barnard’s received frequency reference signal.

Based on the above rationale, it is believed that the limitations of the claim is still met and therefore, the rejection is still maintained.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (8:00 AM - 4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuong Phu

Phuong phu  
Phuong Phu  
02/28/07

PHUONG PHU  
PRIMARY EXAMINER

Primary Examiner  
Art Unit 2611